

## ABSTRACT

In order to improve the monitoring of a machine with movable parts, such as in particular an industrial robot, and for increasing safety, the invention provides a method for monitoring movable parts of a machine, such as an industrial robot, in which at least two different measured quantities are detected and at least one of these measured quantities is processed to a first measure result in such a way that it is comparable with another measured quantity or a second measure result obtained on the basis thereof, that the first measure result is compared with another measured quantity or a measure result obtained on the basis thereof and that a signal characterizing the comparison result is provided.

The invention also provides a machine with movable parts, such as in particular an industrial robot, which is characterized by at least two measuring devices for detecting different measured quantities on movable parts of the machine, a processing unit for at least one measured quantity for the processing thereof into a first measure result comparable with another measured quantity or a second measure result obtained therefrom and a comparison unit for comparing the first measure result with at least one other measured quantity or a second measure result obtained on the basis thereof.

## LIST OF REFERENCE NUMERALS

1	Industrial robot
2	Robot base
3	Inverter
4	Carrousel
5	Robot rocker
6	Robot arm
7	Robot hand
8	Strain gauge
9	Person
11	Monitoring device
12/13/14	Monitoring unit
15	Comparison unit
16	Model
17	Switching/operating device
M	Measurement curve
R	Reference curve
S	Reference corridor
x	Area